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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
841 CHESTNUT BUILDING
PHILADELPHIA, PENNSYLVANIA 19107

Subject: The Toxicological Significance of the Analytical Results of the Shaeffer Drum

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The information and data from the laboratory analyses of samples from the Shaeffer Drum Site were reviewed regarding possible human health hazards from the presence of toxic chemicals in drums, water, soils at this facility.

About a dozen of the drums were reported to contain micro-gram per liter (parts per billion) levels of a variety of semi volatiles including polycyclic aromatic hydrocarbons (PAHs) and related compounds. These include phenanthrene, methylnaphthalene and naphthalene. These are very stable, non-volatile, relatively unreactive compounds that are present in concentrations far to low to constitute a threat to anyone or anything. The PAH substances detected are not considered to be carcinogens by the Agency.

Single hits of very low levels of other semi-volatile substances were reported including diethylphthalate, 2 methylphenol, nitroaniline, and di-n-buthyphthalate but levels were far to low to cause any human health impacts considering any possible exposure scenarios at this locations.

Some of the tested drums were also found to contain low levels of a variety of volatile compounds. A few of these substances including chloroform, carbontetrachloride, and 1-2,dichloroethane are classified by the EPA as probable human carcinogens and are considered to constitute a cancer threat if found at sufficient concentrations in drinking water. The presence in these drums does not elicit any conceivable exposure threat to anyone. It is important to realize

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that in order to elicit any cancer threat the threatened individuals must be continually impacted by the cancer-causing substance over a period of many years, such as from a potable water source.

Other volatiles found in these drums were reported at concentrations far too low to be considered to be a genuine chronic toxic health threat.

There were some spotty hits of the PCB-1260 in soil samples. Aside from about a dozen hits in the low parts per million range there was a single outlier of 120 ppm which exceeds the current standard of 50 ppm for such areas at this facility. Single hits exceeding soil standards are not usually considered to be representitive of the site contamination profile. The arithmetic mean of 34 samples tested for PCBs is less than six (6) ppm which is not any cause for alarm at this location. Such a level would not provoke a removal action. Agency, but it is difficult to conceptualize an exposure scenario in which anyone could possibly be exposed to sufficient levels of these substances to be at risk. Individuals would be required to be in the vicinity of this water for extended time intervals on a daily or almost daily basis to be at risk of contracting cancer from such exposures.